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JUN 26 2001

1623

A.17

RAW SEQUENCE LISTING ^{TECH CENTER 1600/290}
 PATENT APPLICATION: US 09/149,721 DATE: 06/06/2001
 TIME: 13:57:05

Input Set : A:\Sequence Listing Mumper et al..txt
 Output Set: C:\CRF3\06062001\I149721.raw

2 <110> APPLICANT: Mumper, Russ; Tagliaferri, Frank
 W--> 3 <120> TITLE OF INVENTION: HYDROPHOBIC GLYCOSYLAMINE DERIVATIVES, COMPOSITIONS, AND
 METHODS FOR USE
 W--> 4 <130> FILE REFERENCE: 237/023
 W--> 5 <140> CURRENT APPLICATION NUMBER: US 09/149,721
 6 <141> CURRENT FILING DATE: 1998-09-08
 7 <150> PRIOR APPLICATION NUMBER: US 60/058,259
 8 <151> PRIOR FILING DATE: 1997-09-08
 W--> 9 <160> NUMBER OF SEQ ID: 3
 10 <170> SOFTWARE: Microsoft Word
 W--> 11 <210> SEQ ID NO: 1
 12 <211> LENGTH: 462
 13 <212> TYPE: DNA
 14 <213> ORGANISM: Homo Sapiens
 W--> 15 <220> FEATURE:
 16 <221> NAME/KEY: CDS
 17 <222> LOCATION: (1)...(462)
 18 <223> OTHER INFORMATION: Coding sequence of human IL-2
 W--> 19 <400> SEQUENCE: 1
 20 atg tac agg atg caa ctc ctg tct tgc att gca cta agt ctt gca ctt 48
 21 Met Tyr Arg Met Gln Leu Leu Ser Cys Ile Ala Leu Ser Leu Ala Leu
 22 1 5 10 15
 23 gtc aca aac agt gca cct act tca agt tct aca aag aaa aca cag cta 96
 24 Val Thr Asn Ser Ala Pro Thr Ser Ser Thr Lys Lys Thr Gln Leu
 25 20 25 30
 26 caa ctg gag cat tta ctg ctg gat tta cag atg att ttg aat gga att 144
 27 Gln Leu Glu His Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile
 28 35 40 45
 29 aat aat tac aag aat ccc aaa ctc acc agg atg ctc aca ttt aag ttt 192
 30 Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe
 31 50 55 60
 32 tac atg ccc aag aag gcc aca gaa ctg aaa cat ctt cag tgt cta gaa 240
 33 Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu
 34 65 70 75 80
 35 gaa gaa ctc aaa cct ctg gag gaa gtg cta aat tta gct caa agc aaa 288
 36 Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys
 37 85 90 95
 38 aac ttt cac tta aga ccc agg gac tta atc agc aat atc aac gta ata 336
 39 Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile
 40 100 105 110
 41 gtt ctg gaa cta aag gga tct gaa aca aca ttc atg tgt gaa tat gct 384
 42 Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala
 43 115 120 125
 44 gat gag aca gca acc att gta gaa ttt ctg aac aga tgg att acc ttt 432
 45 Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe
 46 130 135 140
 47 tgt caa agc atc atc tca aca ctg act tga/ 462
 48 Cys Gln Ser Ile Ile Ser Thr Leu Thr

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49 145 150
 50 <210> SEQ ID NO: 2
 51 <211> LENGTH: 462
 52 <212> TYPE: DNA
 53 <213> ORGANISM: Artificial Sequence
 W--> 54 <220> FEATURE:
 55 <221> NAME/KEY: CDS
 56 <222> LOCATION: (1)...(462)
 57 <223> OTHER INFORMATION: Optimized coding sequence of human IL-2
 W--> 58 <400> SEQUENCE: 2
 59 atg tac cgc atg cag ctg ctg agc tgc atc gcc ctg agc ctg gcc ctg 48
 60 Met Tyr Arg Met Gln Leu Leu Ser Cys Ile Ala Leu Ser Leu Ala Leu
 61 1 5 10 15
 62 gtg acc aac agc gcc ccc acc agc agc acc aag aag acc cag ctg 96
 63 Val Thr Asn Ser Ala Pro Thr Ser Ser Thr Lys Lys Thr Gln Leu
 64 20 25 30
 65 cag ctg gag cac ctg ctg gac ctg cag atg atc ctg aac ggc atc 144
 66 Gln Leu Glu His Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile
 67 35 40 45
 68 aac aac tac aag aac ccc aag ctg acc cgc atg ctg acc ttc aag ttc 192
 69 Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe
 70 50 55 60
 71 tac atg ccc aag aag gcc acc gag ctg aag cac ctg cag tgc ctg gag 240
 72 Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu
 73 65 70 75 80
 74 gag gag ctg aag ccc ctg gag gag gtg ctg aac ctg gcc cag agc aag 288
 75 Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys
 76 85 90 95
 77 aac ttc cac ctg cgc ccc cgc gac ctg atc agc aac atc aac gtg atc 336
 78 Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile
 79 100 105 110
 80 gtg ctg gag ctg aag ggc agc gag acc acc ttc atg tgc gag tac gcc 384
 81 Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala
 82 115 120 125
 83 gac gag acc gcc acc atc gtg gag ttc ctg aac cgc tgg atc acc ttc 432
 84 Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe
 85 130 135 140
 86 tgc cag agc atc atc agc acc ctg acc tga 462
 87 Cys Gln Ser Ile Ile Ser Thr Leu Thr
 88 145 150
 89 <210> SEQ ID NO: 3
 90 <211> LENGTH: 153
 91 <212> TYPE: PRT
 92 <213> ORGANISM: Homo Sapiens
 W--> 93 <220> FEATURE:
 94 <223> OTHER INFORMATION: Amino acid sequence of human IL-2
 W--> 95 <400> SEQUENCE: 3
 96 Met Tyr Arg Met Gln Leu Leu Ser Cys Ile Ala Leu Ser Leu Ala Leu
 97 1 5 10 15

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98 Val Thr Asn Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu
99 20 25 30
100 Gln Leu Glu His Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile
101 35 40 45
102 Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe
103 50 55 60
104 Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu
105 65 70 75 80
106 Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys
107 85 90 95
108 Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile
109 100 105 110
110 Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala
111 115 120 125
112 Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe
113 130 135 140
114 Cys Gln Ser Ile Ile Ser Thr Leu Thr
115 145 150

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/149,721

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Input Set : A:\Sequence Listing Mumper et al..txt
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L:3 M:283 W: Missing Blank Line separator, <120> field identifier
L:4 M:283 W: Missing Blank Line separator, <130> field identifier
L:5 M:283 W: Missing Blank Line separator, <140> field identifier
L:9 M:283 W: Missing Blank Line separator, <160> field identifier
L:11 M:283 W: Missing Blank Line separator, <210> field identifier
L:15 M:283 W: Missing Blank Line separator, <220> field identifier
L:19 M:283 W: Missing Blank Line separator, <400> field identifier
L:54 M:283 W: Missing Blank Line separator, <220> field identifier
L:58 M:283 W: Missing Blank Line separator, <400> field identifier
L:93 M:283 W: Missing Blank Line separator, <220> field identifier
L:95 M:283 W: Missing Blank Line separator, <400> field identifier